

## REMARKS

Claims 1-17 remain in this application for examination. Applicant expresses his sincere appreciation for the indication of allowable subject matter in combination claims 8-14, however upon reviewing the prior art and rejections of claims 1-7, Applicant is of the opinion that he is entitled to protection on the novel support by itself rather than in combination with the filter element.

### Double Patenting:

On page 2, paragraphs 1 and 2, Applicants claims 1-5 and 8-15 have been provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-3, 6-9 and 12 of copending application 09/901,632 in view of Daniel '176. Applicant submits herewith a Terminal Disclaimer obviating this rejection.

### Specification:

Applicant has reduced the Abstract of the Disclosure to less than 150 words thereby removing the grounds for this rejection.

### Drawings:

Numeral 43 has been added to Fig. 2 and the leader for reference numeral 101 has been corrected to indicate the intersection of lip edges 108 and 110 in Fig. 2. A copy with changes shown in red is submitted for the Examiner's approval.

**Claim Objections:**

Each of the claim objections with respect to claims 1-8 and 11 have been addressed by making the appropriate amendment to the claims. Applicant expresses his sincere appreciation for the Examiner's suggestions.

**Claim Rejections Under 35 U.S.C. §112:**

Applicant has amended claims 2-15 to revise the claims in accordance with the Examiner's suggestions so that proper antecedent basis is provided and to provide clarification with respect to the Examiner's concerns regarding indefiniteness.

**Claims Rejections Under 35 U.S.C. §102:**

Claims 1-5 have been rejected under 35 U.S.C. §102(b) as anticipated by Daniel '176. Applicant respectfully traverses this rejection.

As the Examiner realizes, Daniel discloses a structure which is different from Applicant's invention because in Daniel the combination filter element support and valve is an assemblage of separate pieces whereas in Applicants claimed invention this structure is unitary.

In Applicant's claimed invention, a combination filter element support and valve are configured from unitary body made of a single piece, rather than an integrated assemblage made of several pieces. In Daniel, there are at least eight separate elements comprising the filter element support and valve, three of which are of flexible resilient material, the rest of which are stiff metal. Applicant has but a single element 26 which forms the claimed

filter element support and valve. An advantage of the single element 12 is set forth in the Applicant's Background of the Invention as follows:

During manufacture, when disparate parts are matched, the risk of failure is increased because one of the parts may be of inferior quality and adversely effect the reliability of the entire assembly. It is frequently time consuming and therefore costly to assemble the plurality of elements in order to configure an item reliably. Consequently, utilizing only a single element can be advantageous. This is especially the case with mass produced OEM items such as filters for engine lubricating oil which are manufactured by the millions.

An assembly which makes an element "unitary" as opposed to "integral", disclosed and claimed by Applicant, is clearly not a distinction without a difference.

The patent law maintains that there is a distinct and patentable difference between the concepts of "unitary" and "integral". Therefore this rejection under 35 U.S.C. §102(b) should be withdrawn.

**Claim Rejections Under 35 U.S.C. §103:**

Claims 6-7 and 15 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Daniel in view of Hultgren et al. '666. Applicant respectfully traverses this rejection.

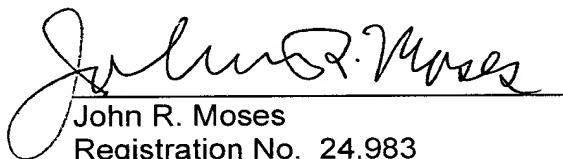
Hultgren et al. does not cure the deficiencies of Daniel as a reference against claims 1-5, upon which claims 6 and 7 depend, because Hultgren also teaches an integral rather than a unitary structure wherein the filter element support is an assemblage of six parts rather than being a single piece, i.e. being unitary. Accordingly, whatever else Hultgren teaches, the rejection is not sustainable.

With respect to claim 15, claim 15 depends from claim 7 and is therefore allowable for the same reasons.

In that this is a full and complete response to the Office Action of October 30, 2002, this application is now in condition for allowance. If the Examiner for any reason feels a personal conference with Applicants' attorneys might expedite prosecution of this application, the Examiner is respectfully requested to telephone the undersigned locally.

The Commissioner is hereby authorized to charge any fees associated with this response or credit any overpayment to Deposit Account No. 13-3402.

Respectfully submitted,



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Date: January 30, 2003

**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**IN THE SPECIFICATION:**

Please amend the specification as follows:

**On page 1, the first full paragraph has been amended as follows:**

This application is related to U.S. Patent Application Serial No. 09/965,806, filed October 1, 2001 Our Docket No. Dana-138, filed on even date, titled "Combination Filter Element Support And Anti-Prefill Valve" and incorporated herein by reference in its entirety.

**IN THE CLAIMS:**

Please amend claims 1-5, 7, 8, 11 and 15 as follows:

1. (Amended) A filter element support and valve ~~or~~ for mounting a filter element on an end plate within a filter cartridge, comprising:

a unitary valve body of resilient flexible material including portions adapted to engage both the filter element and the end plate;  
a bypass valve portion <sup>unitary with valve body;</sup>  
an anti-drainback portion unitary with the valve body, and  
a clean side valve, unitary with valve body for preventing pre-filling of the filter cartridge with fluid.

2. (Amended) The filter element and valve support and valve of claim 1 wherein the filter element is an annular filter element with a hollow core and wherein the valve body is comprised of a unitary body having a first annular section and ~~an aligned a~~  
~~aligned~~  
~~second annular section aligned therewith, both the first and second annular sections~~  
~~being aligned with the hollow core, the valve~~ valve body further having a radially aligned projecting flange portion extending from the annular sections, the first annular section providing a bypass valve and the radially extending flange portion providing an anti-drainback valve.

3. (Amended) The filter element support and valve of claim 2 wherein the clean side valve extends transversely transversely across the annular sections and has a one-way valve thereon which opens only to let fluid out of the hollow core of the filter element.

4. (Amended) The filter element support and valve of claim 3 wherein the clean side valve comprises a plate which extends across the annular sections with the one-way valve fixed on the plate.

5. (Amended) The filter element support and valve of claim 4 wherein the plate and valve ~~member~~ are unitary.

7. (Amended) The filter element support and valve of claim 6 wherein the purse valve comprises a pair of lips which intersect along a line, the lips projecting away from the hollow core wherein fluid pressure in the hollow core separates the lips along the line to open the one purse valve and wherein fluid pressure outside of the filter element applied against the lips keeps the lips in engagement along the line to close the one-way purse valve.

8. (Amended) A combination valve support and sealing element for use in a filter cartridge wherein the filter cartridge includes an annular filter element having a hollow core and an end cap and is disposed in a housing closed by an end plate having a central opening surrounded by an array of radial openings spaced a fixed radial

distance from ~~one another~~ the central opening, the combination valve support and sealing element comprising:

a unitary body of flexible resilient material;

the unitary body having a central opening of a constant diameter, which central opening is coaxial with the central opening of the end plate, the diameter of the central opening being ~~greater than the central opening and less than radial distances between~~ less than the diameter of the area circumscribed by the radial openings;

the unitary body having a first annular section which projects into the hollow core of the filter element for sealing with the filter element and a second section coextensive with the first section, the first annular section having ~~a~~ an annular sealing ring thereon for sealing with the end cap and, the second section sealing only with the end plate around the central opening through the end plate;

the unitary body having a radially projecting flange which is axially spaced from the second section and projects radially beyond the spaced radial openings in the end plate for sealing around the spaced radial openings to provide an anti-drainback valve;

a plurality of radially extending ribs on the radially extending flange, the radially extending ribs having rib portions projecting axially on the first annular section of the unitary body and being axially spaced from the annular sealing ring on the first annular section of the unitary body member, which annular sealing ring deflects inwardly when the filter element is clogged in order to provide a bypass for fluid when fluid is unable to flow through the filter element, and

a clean side valve unitary with the valve unitary body for preventing pre-filling of the cartridge.

11. (Amended) A valve support and sealing element in combination with a filter cartridge in which the filter cartridge includes an annular filter element having a hollow core and end cap with a flange that extends into the hollow core, the filter cartridge being disposed in a housing closed by an end plate having a central opening surrounded by an array of radial openings spaced a fixed radial distance from one another the central opening, the combination comprising:

a unitary body of flexible resilient material;

the unitary body having a central opening of a constant diameter, which central opening is coaxial with the central opening of the end plate, the diameter of the central opening being ~~greater than the central opening and less than the diameter of the area circumscribed by radial distances between the radial openings~~;

the unitary body having a first annular section which projects into the hollow core of the filter element for sealing with the filter element and a second section coextensive with the first section, the first annular section having a an annular sealing ring thereon for sealing with the flange of the end cap and, the second section sealing only with the end plate around the central opening through the end plate;

the unitary body having a radially projecting flange which is axially spaced from the second section and projects radially beyond the spaced radial openings in the end plate for sealing around the spaced radial openings to provide an anti-drainback valve,

a plurality of radially extending ribs on the radially extending flange, the radially extending ribs having rib portions projecting axially on the first annular section of the unitary body and being axially spaced from the annular sealing ring on the first section

of the body member, which annular sealing ring deflects inwardly when the filter element is clogged in order to provide a bypass for oil when oil is unable to flow through the filter element, and

a clean side valve unitary with the valve body for preventing pre-filling of the cartridge.

15. (Amended) The combination of claim 7 wherein the unitary body is made of flexible resilient material of the unitary body is rubber.

## **ABSTRACT OF THE DISCLOSURE**

A unitary three valve filter element support is used in a filter cartridge in which the filter cartridge includes an annular filter element within a housing closed by an end plate having a central opening surrounded by an array of radial openings spaced a fixed radial distance from one another. The unitary support has an annular sealing lip for sealing with the end cap of the filter element, which sealing lip deflects under oil pressure providing a first valve to allow oil to bypass the filter element if the filter media of the filter element is clogged. A second valve is a dirty side anti-drainback valve that is provided by a radial flange projecting from the unitary body. A third valve is a clean side valve aligned with the hollow core of the annular filter element to prevent drainback of clean oil and to prevent refilling of the filter cartridge with used or unfiltered oil.